

## Abstract of the Disclosure

### MODIFIED SILANE COMPOUNDS

5           This invention relates to the reversible protection of  
hydroxy-silane functional groups by acid cleavable  
protecting groups. The development of reversible  
protecting groups greatly enhances the current utility of  
silanes while introducing further novel applications. For  
10 instance, reversibly protected silanes are of particular  
value in applications where room temperature cure and/or  
adhesion is of value, such as coatings, high resolution  
imaging, caulks, adhesives, sealants, gaskets, and  
silicones. Reversibly protected silanes can also be  
15 beneficially used in reticulating agents, and in sizing  
agents, tires, and release coatings. The incorporation of  
reversibly protected silanes into coating resins is of  
particular value. The reversibly protected silane can be  
incorporated into the coating resin by polymerizing a  
20 monomer containing the reversibly protected silane into the  
resin or by post-addition into the coating formulation.  
The reversibly protected silane remains protected under  
basic conditions, such as in a coating formulation that  
contains a volatile base, for instance ammonium hydroxide.  
25 However, deprotection occurs under mildly acidic  
conditions. Thus, as a coating formulation containing a  
volatile base dries the volatile base evaporates and  
deprotection occurs. This allows for controlled room  
temperature crosslinking to occur with hydroxy-  
30 functionalized polymers. The present invention more  
specifically discloses a modified silane compound  
consisting of a silane having 3 or 4 acetal moieties bonded  
thereto.